

Appl. No. 10/754,251  
Amdt. dated March 4, 2005  
Reply to Office action of November 4, 2004

## **REMARKS/ARGUMENTS**

Applicant thanks the Examiner for his careful reading of the claims. It is believed that the claims as now written clearly define patentable subject matter which is neither shown nor suggested by the cited art. Claims 2, 20, 23, 24, 33, and 43 have been canceled without prejudice. Claims 1, 3-19, 21-22, 25-32, 34-42, 44-46, and new claims 47-53 are pending.

### **Claim rejection under 35 U.S.C. §102: McGeer et al (Paragraphs 2 and 8)**

Claims 1-6 and 9-46 were rejected as anticipated by McGeer et al, U.S. Patent 6,264,140 (McGeer).

As indicated in the Information Disclosure Statement filed with the present application, many of the claims of the present application as filed were directed to the same invention as disclosed and claimed in McGeer.

The present amendment has changed those claims to distinguish over the prior art. To the extent that the Office holds that these claims are now patentably distinct from the claims of McGeer, it is respectfully requested that the Examiner review the following documents, all of which are in the file of the parent application and all of which are submitted herewith for the Examiner's convenience:

DECLARATION UNDER 37 CFR 1.131, showing actual reduction to practice before June 8, 1999.

McDonnell, Provisional Application 60/145,286, filed July 23, 1999.

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McGeer et al., Provisional Application 60/138,060, filed June 8, 1999.

It is respectfully submitted that the foregoing establish applicant's priority over the McGeer reference with respect to most or all of the claims now pending.

To the extent that any of claims 1, 3-19, 21, 22, 25,32, 36-42, and 44-53 now pending are held by the Office to be directed to the same patentable invention as the claims of McGeer, it is respectfully requested that an interference be declared to establish priority of invention.

**Claim rejection under 35 U.S.C. §102: Reuter et al (Paragraph 3)**

Claims 1, 8, 12, and 19 were rejected as anticipated by Reuter et al, U.S. Patent 4,753,400 (Reuter). Reuter uses a net as his arrestment device, which is not dependent on any particular configuration of aircraft for its operation.

Claim 1 recites "said aircraft containing a device for capturing said line, said aircraft containing structure suitable for deflecting said line laterally into engagement with said capturing device." Reuter lacks these features.

Claims 8, and 12 are dependent on claim 1 and should be allowable with it.

Claim 19 is dependent on independent claim 18. Claim 18 as amended recites "the flying object having a spanwise lifting surface with a capture device forward of a forward edge of the lifting surface." Nothing in Reuter shows or suggests such a construction.

**Claim rejection under 35 U.S.C. §102: Uhl (Paragraphs 4 and 12)**

Claims 1, 3-7, 10, 12-13, and 15-19, 21, 22, 25-32, 34, 35, and 37-46 were rejected as anticipated by Uhl, U.S. Patent 1,686,298 (Uhl). Uhl discloses a construction in which one of a plurality of hooks 19 hanging from a support structure captures a bail or grapple mounted above an upper wing of a biplane.

Claim 1 recites "said aircraft containing a device for capturing said line, said aircraft containing structure suitable for deflecting said line laterally into engagement with said capturing device." The bail 12 on Uhl's plane 13 is a horizontal line extending at right angles to the direction of flight of the plane. It will deflect Uhl's hook longitudinally rather than laterally and will engage the hook 19 rather than a line.

Claims 3-7, 10, and 12-13 are dependent on claim 1 and should be allowable with it.

Claim 15 recites "said aircraft comprising a capturing device for capturing said line and structure suitable for deflecting said line laterally into engagement with said capturing device" and should be allowable for the same reasons as claim 1.

Claims 16 and 17 are dependent on claim 15 and should be allowable with it.

Claim 18 as amended recites "the flying object having a spanwise lifting surface with a capture device forward of a forward edge of the lifting surface" and "the fixture being inclined at an angle relative to the spanwise lifting surface to intersect the forward edge of the spanwise lifting surface. Uhl lacks this structure.

Claims 19 and 21-22 are dependent on claim 18 and should be allowable with it.

Claim 25 as amended recites "allowing a forward edge of a spanwise lifting surface of a flying object to strike a fixture positioned at an angle relative to the spanwise lifting surface while imparting a decelerating force to the flying object". Uhl's device cannot practice this method. Allowing the forward edge of the wing of Uhl's plane 13 to strike the hooks 17 would tear apart the wing.

Claims 26-32 are dependent on claim 25 and should be allowable with it.

Claim 34 as amended recites "means attached to the flying object for intercepting the sliding of the fixture along a forward edge of a wing or spanwise lifting surface of the flying object." Uhl lacks this structure.

Claims 35-39 are dependent on claim 34 and should be allowable with it.

Claim 40 as amended recites "intercepting the fixture by one or more hooks attached to a wing or spanwise lifting surface of the flying object, the hook or hooks extending forward of a forward edge of the wing or spanwise lifting surface to engage the fixture". Uhl's device lacks this structure and is incapable of carrying out the method as now claimed.

Claim 41 as amended recites "means attached to a wing or spanwise lifting surface of the flying object and extending forward of a forward edge of the wing or spanwise lifting surface for intercepting the fixture." Uhl lacks this structure.

Claims 42 and 44-46 are dependent on claim 41 and should be allowable with it.

**Claim rejection under 35 U.S.C. §102: Belleville (Paragraphs 5 and 11)**

Claims 1, 3-7, 12, 14-15, 18-19, 21, 22, 25,32, 34-42, and 44-46 were rejected as anticipated by Belleville, U.S. Patent 1,731,091. Belleville discloses a device including a hook 77 centered on the upper surface of a wing of an airplane and a traveling device or trolley 57 riding on a horizontal cable 50. The airplane approaches the trolley 57 in the plane of the horizontal cable 50.

Claim 1 recites "said aircraft containing a device for capturing said line, said aircraft containing structure suitable for deflecting said line laterally into engagement with said capturing device." The hook 77 on Belleville's airplane will deflect his trolley longitudinally rather than laterally and will engage the trolley 57 rather than a line. Thus, Belleville lacks this structure of claim 1.

Claims 3-7 and 12 are dependent on claim 1 and should be allowable with it.

Claim 14 as amended recites "c) allowing the subsequent motion of the object to slide the fixture along a forward edge of a wing or spanwise lifting surface of the flying object;" and "d) intercepting the sliding of the fixture by one or more hooks attached to a wing or spanwise lifting surface of the flying object". This is entirely different from Belleville's method, in which any sliding of the trolley 57 will be along an upper surface of the wing.

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Claim 15 recites "said aircraft comprising a capturing device for capturing said line and structure suitable for deflecting said line laterally into engagement with said capturing device" and should be allowable for the same reasons as claim 1.

Claim 18 as amended recites "the flying object having a spanwise lifting surface with a capture device forward of a forward edge of the lifting surface" and "the fixture being inclined at an angle relative to the spanwise lifting surface to intersect the forward edge of the spanwise lifting surface. Belleville lacks this structure.

Claims 19 and 21-22 are dependent on claim 18 and should be allowable with it.

Claim 25 as amended recites "allowing a forward edge of a spanwise lifting surface of a flying object to strike a fixture positioned at an angle relative to the spanwise lifting surface while imparting a decelerating force to the flying object". Belleville's device cannot practice this method. Allowing the forward edge of the wing of Belleville's airplane to strike the trolley 57 would prevent capture of the airplane.

Claims 26-32 are dependent on claim 25 and should be allowable with it.

Claim 34 as amended recites "means attached to the flying object for intercepting the sliding of the fixture along a forward edge of a wing or spanwise lifting surface of the flying object." Belleville lacks this structure.

Claims 35-39 are dependent on claim 34 and should be allowable with it.

Claim 40 as amended recites "intercepting the fixture by one or more hooks attached to a wing or spanwise lifting surface of the flying object, the hook or hooks

extending forward of a forward edge of the wing or spanwise lifting surface to engage the fixture". Belleville's device lacks this structure and is incapable of carrying out the method as now claimed.

Claim 41 as amended recites "means attached to a wing or spanwise lifting surface of the flying object and extending forward of a forward edge of the wing or spanwise lifting surface for intercepting the fixture." Belleville lacks this structure.

Claims 42 and 44-46 are dependent on claim 41 and should be allowable with it.

**Claim rejection under 35 U.S.C. §102: Geraldson (Paragraphs 6 and 10)**

Claims 1, 3-6, 12-14, 17-19, 21, 22, 25,32, 34-42, and 44-46 were rejected as anticipated by Geraldson, U.S. Patent 968,339. Geraldson discloses a tower with arms 2 and depending cables 13, each cable having a hook 14 at its lower end. Aeroplanes for use with the tower must be provided at their upper sides with rings or other suitable devices by means of which they may be suspended from the cables.

Claim 1 recites "said aircraft containing a device for capturing said line, said aircraft containing structure suitable for deflecting said line laterally into engagement with said capturing device." The ring on the top of Geraldson's aeroplane will deflect his hook 14 longitudinally rather than laterally and will engage the hook 14 rather than a line. Thus, Geraldson lacks this structure of claim 1.

Claims 3-4 and 12-13 are dependent on claim 1 and should be allowable with it.

Claim 14 as amended recites “c) allowing the subsequent motion of the object to slide the fixture along a forward edge of a wing or spanwise lifting surface of the flying object;” and “d) intercepting the sliding of the fixture by one or more hooks attached to a wing or spanwise lifting surface of the flying object”. This is entirely different from Geraldson's method, in which any sliding of the hook 14 will be along an upper surface of the wing.

Claim 17 is dependent on claim 15. Claim 15 recites “said aircraft comprising a capturing device for capturing said line and structure suitable for deflecting said line laterally into engagement with said capturing device”, and claim 17 should be allowable for the same reasons as claim 1.

Claim 18 as amended recites “the flying object having a spanwise lifting surface with a capture device forward of a forward edge of the lifting surface” and “the fixture being inclined at an angle relative to the spanwise lifting surface to intersect the forward edge of the spanwise lifting surface. Geraldson lacks this structure.

Claims 19 and 21-22 are dependent on claim 18 and should be allowable with it.

Claim 25 as amended recites “allowing a forward edge of a spanwise lifting surface of a flying object to strike a fixture positioned at an angle relative to the spanwise lifting surface while imparting a decelerating force to the flying object”. Geraldson's device cannot practice this method. Allowing the forward edge of the wing



of Geraldson's aeroplane to strike the cable 13 or hook 14 would prevent capture of the plane.

Claims 26-32 are dependent on claim 25 and should be allowable with it.

Claim 34 as amended recites "means attached to the flying object for intercepting the sliding of the fixture along a forward edge of a wing or spanwise lifting surface of the flying object." Geraldson lacks this structure.

Claims 35-39 are dependent on claim 34 and should be allowable with it.

Claim 40 as amended recites "intercepting the fixture by one or more hooks attached to a wing or spanwise lifting surface of the flying object, the hook or hooks extending forward of a forward edge of the wing or spanwise lifting surface to engage the fixture". Geraldson's device lacks this structure and is incapable of carrying out the method as now claimed.

Claim 41 as amended recites "means attached to a wing or spanwise lifting surface of the flying object and extending forward of a forward edge of the wing or spanwise lifting surface for intercepting the fixture." Geraldson lacks this structure.

Claims 42 and 44-46 are dependent on claim 41 and should be allowable with it.

**Claim rejection under 35 U.S.C. §102: Richardson (Paragraphs 7 and 9)**

Claims 1, 3-19, 21-22, 25-32, 34-42, and 44-46 were rejected as anticipated by Richardson, U.S. Patent 1,869,506. Richardson discloses a system for mooring an air plane to a dirigible in flight, the system including a ring 6 carried by cables on the

dirigible, a pole 8 which allows an operator of the dirigible to maneuver the ring, and a hook 20 mounted above the upper wing of the air plane.

Claim 1 recites "said aircraft containing a device for capturing said line, said aircraft containing structure suitable for deflecting said line laterally into engagement with said capturing device." The hook 20 on the top of Richardson's air plane will deflect his ring 6 longitudinally rather than laterally and will engage the ring 6 rather than a line. Thus, Richardson lacks this structure of claim 1.

Claims 3-13 are dependent on claim 1 and should be allowable with it.

Claim 14 as amended recites "c) allowing the subsequent motion of the object to slide the fixture along a forward edge of a wing or spanwise lifting surface of the flying object;" and "d) intercepting the sliding of the fixture by one or more hooks attached to a wing or spanwise lifting surface of the flying object". This is entirely different from Richardson's method, in which the operator controls movement of the ring 6, and any sliding of the ring 6 will be along an upper surface of the wing.

Claim 15 recites "said aircraft comprising a capturing device for capturing said line and structure suitable for deflecting said line laterally into engagement with said capturing device". Richardson discloses no such aircraft structure, and claim 15 should be allowable for the same reasons as claim 1.

Claims 16 and 17 are dependent on claim 15 and should be allowable with it.

Claim 18 as amended recites "the flying object having a spanwise lifting surface with a capture device forward of a forward edge of the lifting surface" and "the fixture being inclined at an angle relative to the spanwise lifting surface to intersect the forward edge of the spanwise lifting surface. Richardson lacks this structure.

Claims 19, 21, and 22 are dependent on claim 18 and should be allowable with it.

Claim 25 as amended recites "allowing a forward edge of a spanwise lifting surface of a flying object to strike a fixture positioned at an angle relative to the spanwise lifting surface while imparting a decelerating force to the flying object". Richardson's device cannot practice this method. Allowing the forward edge of the wing of Richardson's air plane to strike the ring 6 or its supporting cables 14 would prevent capture of the plane.

Claims 26-32 are dependent on claim 25 and should be allowable with it.

Claim 34 as amended recites "means attached to the flying object for intercepting the sliding of the fixture along a forward edge of a wing or spanwise lifting surface of the flying object." Richardson lacks this structure.

Claims 35-39 are dependent on claim 34 and should be allowable with it.

Claim 40 as amended recites "intercepting the fixture by one or more hooks attached to a wing or spanwise lifting surface of the flying object, the hook or hooks extending forward of a forward edge of the wing or spanwise lifting surface to engage

the fixture". Richardson's device lacks this structure and is incapable of carrying out the method as now claimed.

Claim 41 as amended recites "means attached to a wing or spanwise lifting surface of the flying object and extending forward of a forward edge of the wing or spanwise lifting surface for intercepting the fixture." Richardson lacks this structure.

Claims 42 and 44-46 are dependent on claim 41 and should be allowable with it.

**New claims 47-53**

New claims 47-50 are directed to the hook of the preferred embodiments, for example the illustrative embodiment of Figure 3. These claims define an invention shown or suggested by none of the prior art except McGeer. These claims are believed to be patentably distinct from McGeer's claims, and as applicant has pointed out above in the discussion of the McGeer patent, applicant has priority with respect to them. The McGeer priority document lacks a disclosure of the features set out in these claims, whereas applicant's priority document does; McGeer is therefore not prior art with respect to these claims. The McGeer provisional application made use of a slot cut into the end of the wing (and even talked of taping over it to provide a smooth leading edge), rather than a forward-extending separate hook element mounted on the wing. The forward-extending hook is disclosed as a separate element in applicant's priority document (provisional application). See McDonnell, Provisional Application 60/145,286,

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filed July 23, 1999 as compared with McGeer et al., Provisional Application 60/138,060,  
filed June 8, 1999. See also DECLARATION UNDER 37 CFR 1.131.

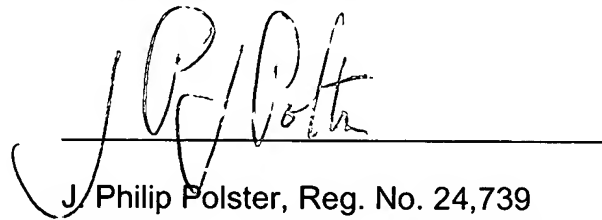
New claims 51-53 are dependent on claim 1 and should be allowable with it.

### **Conclusion**

All of the claims as now amended are believed to define an invention which is  
neither shown nor suggested by the prior art. It is therefore requested that the case be  
passed to issue. Should the examiner have any questions or suggestions, he is urged  
to call applicant's undersigned attorney at 314-238-2426.

Respectfully submitted,

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